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Provisional specification in connection with Application No. 2002951072 for a
patent by MANREX PTY. LTD as filed on 28 August 2002.



WITNESS my hand this
Twenty-seventh day of August 2003

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Provisional Specification

PA110-81

Invention Title

Device for ejecting blister tablets

The invention is described in the following statement

(See within)

THIS INVENTION relates to a device for removing tablets from a blister of a blister sheet by way by way of its foil backing which seals the tablets into the blister.

The conventional way of removing tablets from a blister is by depressing the convex face of the blister so that the tablets are forced by finger pressure through the foil backing sheet behind it. Unfortunately the finger pressure which must be exerted on the face of the blister to eject its contained tablets, may sometimes be excessive for an elderly and possibly frail patient to apply.

An object of this invention is to provide a device which avoids a patient having to use finger pressure to eject tablets from a blister.

In accordance with the present invention a device for ejecting tablets from a blister of a blister sheet through a foil backing sheet, comprises a cup having a rim which can be placed against the underside of the backing sheet around the position of the blister, and a projection for rupturing the foil and extending upwardly above the rim of the cup in the vicinity of its central portion, the projection being used to strip the foil of the backing sheet tablets from the underside of the blister so that the tablets fall through the ruptured foil into the cavity of the cup from which they can be retrieved by the patient.

Preferably the projection is constructed as a blade which can be turned by the cup once it has perforated the foil. The turning action strips away the foil from the sides of the blister to leave a large opening through which the tablets can drop into the cup.

To facilitate the perforation of the foil, the end of the blade is conveniently serrated. The shape and arrangement of the serrations may be varied to accommodate a wide variety of blister sizes and shapes.

The invention will now be described in more detail, by way of example, with reference to the accompanying informal drawing, in which:

FIGURE 1 is a plan view of a device for ejecting tablets from a blister of a blister sheet;

FIGURES 2 and 3 are respectively side views of the device as viewed in the directions of the arrows A and B, respectively, in Figure 1;

FIGURE 4 shows the device in use to dislodge tablets from a blister; and,

FIGURE 5 shows in vertical section an alternative shape of device.

Figures 1 and 2 show a device 1 comprising a circular cup 2 made for plastics material and about five centimetres in diameter. The cup 2 has a cylindrical side-wall 3 and a circular base 4. The side wall is about three centimetres high and terminates in a circular rim 5. It will be appreciated that the cup 2 may be oblong instead of circular, to facilitate a manual grip on it by the fingers and hand of the user and to make twisting of it a little easier.

As shown in figures 2 and 3, an L-shaped plate provides a projection 6 shaped as a blade is attached to the base 4 of the cup and extends upwardly through its central portion for about four and a half centimetres. The upper part of the projection therefore extends about one and a half centimetres above the rim 5 of the cup. This of course may be varied to suit various shapes and depths of blisters. The upper end of the projection is serrated at 7 to provide a line of saw-teeth.

Figure 4 shows a blister sheet 8 having a blister 9 from which tablets 10 are to be dislodged by the device, and a foil backing sheet 11 which is easily ruptured and which seals the tablets 9 in the cavity of the blister.

To eject the tablets 10 from the blister 9 the cup 2 is raised beneath the underside of the foil backing sheet 11 so that the saw-toothed end 7 of the blade 6 ruptures the sheet 11 and enters the cavity of the blister. Simultaneously the circular rim 5 of the cup is pressed against the underside

of the sheet 11 around the marginal under edge of the blister. The cup is then rotated about its axis so that the end-portion 7 of the blade 6 inside the blister cavity strips away the foil 11 from the edge of the blister and dislodges the tablets 10 from the cavity so that they fall through the ruptured foil 11 into the cup 2. They can then be retrieved from the cavity of the cup by the patient.

Figure 5 shows a device made in two parts which are screwed together and which enable cleaning of the device to be carried out easily. The device comprises a polished metal cup 21 having a central threaded opening 22 in its base 19. A projection 23 for removing tablets from a blister is also made of polished metal and has a tapering central stalk 24 terminating at its upper end in a chevron shaped blade 25 located above the rim 26 of the cup 21 and for rupturing a foil backing sheet of a sealed blister as has already been explained with reference to figure 4. The body of the stalk 24 is of conical shape and tapers upwardly from an annular portion 27 which is formed around the marginal edge-portion of its upper surface with a moat 28 of U-shaped cross-section and which encircles the root of the stalk 24. The peripheral edge of the annular portion 27 fits snugly against the interior wall of the cup 21. A threaded shaft 29 projects downwardly from the underside of the annular portion 27 and is screwed into the central threaded opening 22 of the cup 21.

When the device is in use, the foil backing strip of a blister is perforated by the chevron of the blade which is then caused to strip away the remainder of the foil sealing the underside of the blister by rotation of the cup. This allows the tablets in the cavity of the blister to drop into the moat of the cup. As the interior of the cup is devoid of sharp corners it can easily be kept clean.

From the above description it will be appreciated that the invention claimed resides in one or more of the features set forth in the following numbered paragraphs:

1. A device for ejecting tablets from a blister of a blister sheet through a foil backing sheet, comprising a cup having a rim which can be placed against the underside of the backing sheet around the position of the blister, and a projection for rupturing the foil and extending upwardly above the rim of the cup in the vicinity of its central portion, the projection being used to strip the foil of the backing sheet tablets from the underside of the blister so that the tablets fall through the ruptured foil into the cavity of the cup from which they can be retrieved by the patient.
2. A device as set forth in the preceding paragraph, in which the projection is constructed as an upwardly directed blade.
3. A device as set forth in the preceding paragraph, in which the upper end of the blade is serrated to assist rupturing of the foil.

Dated this 29th. day of August 2002.

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